

**IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF GEORGIA
MACON DIVISION**

YKK CORPORATION and	:	
YKK (U.S.A.) INC.,	:	
Plaintiffs,	:	
v.	:	CASE NO.: 5:13-CV-306 (LJA)
	:	
VELCRO USA INC., and	:	
VELCRO CANADA INC.,	:	
Defendants.	:	

ORDER

Before the Court are Defendants' Motion for Partial Summary Judgment of Non-Infringement (Doc. 92) and Request for Hearing on Defendants' Motion for Partial Summary Judgment of Non-Infringement (Doc. 106). For the reasons that follow, Defendants' Motion for Partial Summary Judgment of Non-Infringement (Doc. 92) is **GRANTED** in part and **DENIED** in part, and Defendants' Request for Hearing (Doc. 106) is **DENIED**.

BACKGROUND

I. Procedural Background

Plaintiff YKK Corporation is the owner by assignment of the patent in dispute, United States Patent Number 6,720,059, entitled "Fastener Strip Having Sealing Vertical Wall" ("the '059 Patent"). (Doc. 74 at 1). Plaintiff YKK (U.S.A.) Inc. is the exclusive licensee of the '059 Patent. (*Id.*) (collectively "YKK"). On August 26, 2013, Plaintiffs filed a Complaint alleging one count of infringement of the '059 Patent. (Doc. 1). Therein, Plaintiffs alleged that Defendants Velcro USA Inc. and Velcro Canada Inc. (collectively "Velcro") infringed the '059 Patent with its "4GI" fastener strips. (*Id.* ¶ 13). On January 7, Plaintiffs amended their Complaint, but maintained a single count of alleged infringement. (Doc. 66). On February

18, 2016, Defendants filed an Answer, Affirmative Defenses and Counterclaims denying infringement and raising several affirmative defenses and counterclaims, including the doctrines of estoppel and laches, as well as the invalidity of the ‘059 Patent for failure to satisfy 25 U.S.C. §§ 101, 102, 103, 112, 116, 119, and 120. (*See Doc. 67 ¶¶ 20–47*). Plaintiffs later amended their Complaint, adding allegations of infringement against a second accused product, Velcro’s “MH4” fastener strip. (Doc. 66).

The Parties presented seven (7) disputed terms across claims 2, 3, 4, 9, 12, and 13 of the ‘059 Patent before the Court for construction. (Doc. 74). The Parties submitted claim-construction briefing and a hearing was held pursuant to *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370, 388–89 (1996). (Doc. 74 at 2). The Court then issued a Claim Construction Order, which construed the disputed terms. *See (Id. at 2)*.

Subsequently, the Defendants filed the present Motion. (Doc. 92). Therein, Defendants move for partial summary judgment of non-infringement with regard to their MH4 product. (*Id.*). Defendants argue that their MH4 product does not infringe the ‘059 Patent because the MH4 lacks two elements of the ‘059 Patent. (*Id.*). Specifically, Defendants contend that the MH4 lacks “a plurality of staggered members,” and therefore cannot infringe claims 2, 3, 4, and 9 of the ‘059 Patent. (*Id. at 1*). Further, Defendants allege that the MH4 lacks “continuous transverse walls,” and therefore cannot infringe claims 12-19 of the ‘059 Patent. (*Id.*).

II. Factual Background¹

The ‘059 Patent describes an invention “in the area of hook-and-loop fastener strips, specifically a hook or loop fastener strip with vertical sealing members located along side edges of a fastener layer,” and for use in “molding the fastener strip with an object, such as a

¹ The relevant facts are derived from the Amended Complaint (Doc. 66), Answer (Doc. 67), Defendants’ Statement of Undisputed Facts (Doc. 92-2), Plaintiffs’ Response to Defendants’ Statement of Undisputed Facts (Doc. 102-27), and the record in this case. Where relevant, the factual summary also contains undisputed and disputed facts derived from the pleadings, the discovery and disclosure materials on file, and any affidavits, all of which are construed in the light most favorable to Plaintiffs as the non-moving party. *See Fed. R. Civ. P. 56; Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986).

foam-molded product like a cushion body used for an automobile seat.” ‘059 Patent, col. 1, ll. 10–16. Defendants’ accused MH4 fastener strip product is a one-piece, molded hook fastener strip for use in automotive foam-molded seats. (Doc. 103-27 at 5).

Plaintiffs have accused Defendants’ MH4 product of infringing Claims 2, 3, 4, 9, and 12-19 of the ‘059 Patent (“the Asserted Claims”). (*Id.* at 2). Claims 2, 3, 4, and 9 include the limitation “a plurality of staggered members upstanding from said first major surface of said base.” (*Id.*). Claim 12 includes the limitation “wherein said substrate additionally comprises a continuous transverse wall disposed on an end portion of said substrate.” (*Id.*) Claim 13 includes the limitation “wherein said substrate additionally comprises continuous transverse walls disposed at predetermined intervals along the length thereof.” (*Id.*). Claims 14-19 incorporate the limitations “continuous transverse wall” and “continuous transverse walls,” and as such, depend directly or indirectly from Claims 12 and 13. (*Id.* at 3).

In October 2001, Plaintiff YKK Corporation filed Application No. 09/972,353 as a continuation-in-part application of now-abandoned Application No. 09/848,878, submitting thirty-seven (37) original claims to the examiner. (*Id.*). In August 2002, Plaintiff YKK Corporation submitted a new specification and abstract to replace the original specification and abstract. (*Id.*). Plaintiff also requested that the examiner cancel the original claims 1-37 and add new claims 38-75. (*Id.*). The examiner rejected Claims 38, 39, 41, 42, 44, 45, 50-52, 54, 55, 56-62, 65, and 76-79 as being clearly anticipated by U.S. Patent No. 5,067,210 to Keyaki (“Keyaki”). (Doc. 100-25 at 13). The examiner rejected Claims 38, 39, 43-45, 50, 52, 58-62, 65, and 76-79 as being clearly anticipated by U.S. Patent No. 3,408,705 to Kayser *et al.* (“Kayser”). (*Id.*). The examiner rejected Claims 38, 29, 40, 42, 44-46, 50, 52, and 53 as being clearly anticipated by U.S. Patent No. 5,058,245 to Saito and rejected Claims 58, 59, 61, 62, 64, and 67 as being unpatentable over Saito. (Doc. 33-1 at 219). On April 28, 2003, Plaintiff amended claim 61, added new claims 76-79, and responded to the examiner’s rejections regarding claims 38-46, 50-55, 58-62, 64, 65, and 67. (*Id.* at 223). In May of 2003, the examiner rejected and/or objected to all of the pending claims. (Doc. 103-27 at 4). Claims 38, 39, 41, 42-45, 50-52, 54, 55, 58-62, 65, and 76-79 were rejected as anticipated by Keyaki or Kayser. The examiner noted that Plaintiff’s arguments were considered but were deemed

not persuasive. (*Id.*). The examiner also noted that additional claims 40, 46-49, 53, 56, 57, 63, 64, and 66-75 would be allowable if “rewritten in independent form including all of the limitations of the base claim and any intervening claims.” (*Id.*).

On November 3, 2003, Plaintiff submitted an Amendment After Final in which Plaintiff amended Claims 38, 41-43, 50, 51, 55, 58, 68-70 and added new Claims 80-85. (Doc. 100-25 at 16-30). Plaintiff amended claim 58 to add “wherein said substrate additionally comprises a continuous transverse wall disposed on an end portion of said substrate. (*Id.* at 20). Claim 58 later issued as Claim 12 of the ‘059 Patent. (Doc. 103-27 at 5). Plaintiff added new Claim 85. (*Id.*). Claim 85 recites the following limitation: “wherein said substrate additionally comprises continuous transverse walls disposed at predetermined intervals along the length thereof.” (*Id.*). Claim 85 later issued as Claim 13 of the ‘059 Patent. (*Id.*). Claim 85 was never amended. (*Id.*). On November 26, 2003, the examiner allowed claims 38, 41-43, 50, 51, 58, 68-75, and 80-85. (*Id.*).

LEGAL STANDARD

I. Rule 56

Federal Rule of Civil Procedure 56 allows a party to move for summary judgment when the party contends no genuine issue of material fact remains and the party is entitled to judgment as a matter of law. “Summary judgment is appropriate if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law.” *Anchor Wall Systems, Inc. v. Rockwood Retaining Walls, Inc.*, 340 F.3d 1298, 1306 (Fed. Cir. 2003) (citing Fed. R. Civ. P. 56(c)). “A genuine issue of material fact does not exist unless there is sufficient evidence favoring the nonmoving party for a reasonable jury to return a verdict in its favor.” *Grimes v. Miami Dade Cty.*, 552 F. App’x 902, 904 (11th Cir. 2014) (citing *Chapman v. AI Transp.*, 229 F.3d 1012, 1023 (11th Cir. 2000)). “An issue of fact is ‘material’ if it is a legal element of the claim under the applicable substantive law which might affect the outcome of the case.” *Allen v. Tyson Foods, Inc.*, 121 F.3d 642, 646 (11th Cir. 1997) (citing *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986)).

An issue of fact “is ‘genuine’ if “the record taken as a whole could . . . lead a rational trier of fact to find for the nonmoving party.” *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986).

The movant bears the initial burden of showing, by reference to the record, that there is no genuine issue of material fact. *See Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986); *Liquidating Trustee Ester DuVal of KI Liquidation, Inc. v. U.S.*, 89 Fed. Ct. 29, 37-38 (Fed. Cir. 2009). The movant can meet this burden by presenting evidence showing there is no genuine dispute of material fact, or by demonstrating to the district court that the nonmoving party has failed to present evidence in support of some element of its case on which it bears the ultimate burden of proof. *See Celotex*, 477 U.S. at 322-24. Once the movant has met its burden, the nonmoving party is required “to go beyond the pleadings” and identify “specific facts showing that there is a genuine issue for trial.” *Id.* at 324. To avoid summary judgment, the nonmoving party “must do more than summarily deny the allegations or show that there is some metaphysical doubt as to the material facts.” *Matsushita*, 475 U.S. at 586 (citations and internal quotations omitted). Instead, the nonmovant must point to evidence in the record that would be admissible at trial. *See Conoco, Inc. v. Department of Energy*, 99 F.3d 387, 393-95 (Fed. Cir. 1996). Such evidence may include affidavits or declarations that are based on personal knowledge of the affiant or declarant. *See* Fed. R. Civ. P. 56(c)(4).

On a motion for summary judgment, the Court must view all evidence and factual inferences drawn therefrom in the light most favorable to the nonmoving party and determine whether that evidence could reasonably sustain a jury verdict in its favor. *See Celotex*, 477 U.S. at 322-23; *Liquidating Trustee*, 89 Fed. Ct. at 37. However, the Court must grant summary judgment if there is no genuine issue of material fact and the movant is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c).

II. Direct Infringement

A party can be liable for infringing a patent directly or indirectly. In general, a party directly infringes a patent if it, “without authority makes, uses, offers to sell or sells any

patented invention, within the United States or imports into the United States any patented invention during the term of the patent[.]” 35 U.S.C. § 271(a). Direct infringement may occur either literally or under the doctrine of equivalents. *See Cook v. Biotech Inc. v. Acell, Inc.*, 460 F.3d 1365, 1373 (Fed. Cir. 2006). “Literal infringement of a [patent’s] claim exists when each of the claim limitations ‘reads on,’ or in other words is found in, the accused device.” *Allen Engineering Corp. v. Bartell Industries, Inc.*, 299 F.3d 1336, 1345 (Fed. Cir. 2002) (quoting *Baxter Healthcare Corp. v. Spectramed, Inc.*, 49 F.3d 1575, 1583 (Fed. Cir. 1995)).

Under the doctrine of equivalents, “a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if there is ‘equivalence’ between the elements of the accused product or process and the claimed elements of the patented invention.” *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 21 (1997) (citing *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 609 (1950)). “An element in the accused product is equivalent to a claim limitation if the differences between the two are ‘insubstantial’ to one of ordinary skill in the art.” *Amgen, Inc. v. F. Hoffman-La Roche, Ltd.*, 580 F.3d 1340, 1382 (Fed. Cir. 2009) (internal citation omitted). *See also Leggett & Plant, Inc. v. Hickory Springs Mfg. Co.*, 285 F.3d 1353, 1359 (Fed. Cir. 2002). Differences between a patented invention and an accused product may be considered “insubstantial” when “a claimed limitation and the accused product perform substantially the same function in substantially the same way to obtain substantially the same result.” *V-Formation, Inc. v. Benetton Group Spa*, 401 F.3d 1307, 1313 (Fed. Cir. 2005). *See also Schoell v. Regal Marine Indus., Inc.*, 414 F.3d 1202 (Fed. Cir. 2001); *Allen Engineering*, 299 F.3d at 1345.

In general, ruling on a claim of direct patent infringement involves a two-step inquiry. “First, the claim must be properly construed to determine its scope and meaning. Second, the claim as properly construed must be compared to the accused device or process.” *Carroll Touch, Inc. v. Electro Mech. Sys. Inc.*, 15 F.3d 1573, 1576 (Fed. Cir. 1993). “Infringement, whether literal or under the doctrine of equivalents, is a question of fact.” *Cook*, 460 F.3d at 1373 (citing *Bai v. L&L Wings, Inc.*, 160 F.3d 1350, 1353 (Fed. Cir. 1998)). Thus, “[t]o prevail, the plaintiff must establish by preponderance of the evidence that the accused device infringes one or more claims of the patent either literally or under the

doctrine of equivalents.” *Id.* (citing *WMS Gaming, Inc. v. Int’l Game Tech.*, 184 F.3d 1339 (Fed. Cir. 1999)). In other words, “the plaintiff must show the presence of every [limitation] or its substantial equivalent in the accused device.” *Woherine World Wide, Inc. v. Nike, Inc.*, 38 F.3d 1192, 1199 (Fed.Cir.1994).

III. Indirect Infringement

A party may be liable for indirect infringement under theories of “active inducement of infringement” or “contributory infringement.” *See* 35 U.S.C. §§ 271(b), (c). To establish liability for active inducement of infringement under section 271(b), a patent holder must prove that “the alleged inducer knew of the patent, knowingly induced the infringing acts, and possessed a specific intent to encourage another’s infringement of the patent.” *Vita-Mix Corp. v. Basic Holding, Inc.*, 581 F.3d 1317, 1328 (Fed. Cir. 2009) (citing *DSU Med. Corp. v. JMS Co., Ltd.*, 471 F.3d 1293, 1305 (Fed. Cir. 2006)). To establish liability for contributory infringement under section 271 (c), a “plaintiff must show that [the] defendant ‘knew that the combination for which its components were especially made was both patented and infringing’ and that defendant’s components have ‘no substantial non-infringing uses.’” *Cross Medical Products, Inc. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293, 1312 (Fed. Cir. 2005). (quoting *Golden Blount, Inc. v. Robert H. Peterson Co.*, 365 F.3d 1054, 1061 (Fed. Cir. 2004)). Importantly, “[t]here can be no inducement or contributory infringement without an underlying act of direct infringement.” *Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1326 (Fed.Cir.2004) (citation omitted). *See also Dynacore Holdings Corp. v. U.S. Philips Corp.*, 363 F.3d 1263, 1272 (Fed.Cir.2004) (“Indirect infringement, whether inducement to infringe or contributory infringement, can only arise in the presence of direct infringement....”).

DISCUSSION

As noted above, the Court, in its Claim Construction Order, has determined the scope and meaning of the disputed claims in the ’059 Patent and thus completed the first step of the infringement inquiry. Concerning the second step, Plaintiffs contend that when

the “plurality of staggered members” and “continuous transverse wall[s]” limitations are compared to the features of Defendants’ MH4 fastener strip, Defendants’ MH4 product directly or indirectly infringes independent Claims 2, 3, 4, 9, 12, 13, and dependent Claims 14-19 of the ’059 Patent. *See* (Docs. 92 at 7-14; 108 at 2-11).

With regard to Claims 2, 3, 4, and 9, Defendants seek summary judgment of non-infringement arguing that under the Court’s construction of the term “plurality of staggered members,” its MH4 product does not infringe on Plaintiffs’ Patent. Regarding Claims 12 and 13, Defendants seek summary judgement of non-infringement arguing that under the Court’s construction of the term “continuous transverse walls,” its MH4 product does not infringe on Plaintiffs’ Patent. Finally, Defendants seek summary judgment of non-infringement arguing that Claims 15-19² are dependent upon Claims 12 and 13, and because its MH4 product does not infringe on those claims, the MH4 product cannot be held to have infringed on Plaintiff’s Patent with regard to Claims 15-19.

I. Claims 2, 3, 4, 9: “Plurality of Staggered Members”

The Court has construed the term “*a plurality of staggered members* upstanding from said first major surface of said base between said fastening elements and said edge of said base, for controlling the degree of foam intrusion from said edge of said base during the molding process” in Asserted Claims 2, 3, 4, and 9 to mean:

two or more upstanding structures on the first major surface of the base between its edges and the fastening elements, in which the upstanding structures are *positioned such that portions of each upstanding structure in one row overlap portions of the upstanding structures in the adjacent row* in order to control foam intrusion.

(Doc. 74 at 9) (emphasis added).

² As discussed below, *infra* note 3, Defendants do not specifically address Claim 14 in the present Motion. However, the Court acknowledges that like Claims 15-19, Claim 14 is dependent upon Claims 12 and 13. As such, the analysis applicable to Claims 15-19 is also applicable to dependent Claim 14.

A. Direct Infringement

1. Literal Infringement

Defendants argue that its MH4 fastener strip does not literally infringe the “plurality of staggered members” limitation because the inner wall running along the length of its MH4 strip is has no gaps and, though the top of its outer wall has wave-like features, the outer wall is otherwise continuous, as well. (Doc. 92 at 7-9). Specifically, Defendants point out, the MH4 “features *one* elongated, longitudinal *continuous* inner wall and *one* adjacent *continuous* outer wall featuring a shallow wave-form at the top of the wall running along each of the elongated, longitudinal sides of the fastener strip.” (*Id.*) (citing Doc. 92-2 ¶ 20) (emphasis in original). In response, Plaintiffs concede that the “staggered members” limitation is not found in the MH4 strip because the inner row of the MH4 strip is continuous. Accordingly, Defendants’ MH4 fastener strip does not literally infringe the “plurality of staggered members” limitation in Claims 2, 3, 4, or 9 of the ’059 Patent.

2. Doctrine of Equivalents

Defendants further argue that the MH4 fastener strip does not infringe the “plurality of staggered members” limitation under the doctrine of equivalents because the “MH4’s continuous outer wave wall and inner continuous wall do not perform[] substantially the same function in substantially the same way to obtain substantially the same result.” (Doc. 92 at 9) (citing *Schoell*, 414 F.3d at 1210)). *See also* (Doc. 108 at 9–11).

With regard to the function of the limitation, the Court stated in the Claim Construction Order that “staggering requires at least two rows of vertical members and that the function of the staggered, or nonlinear, members is to impede foam intrusion by causing the flow of foam passing through the gaps between the vertical members to change direction.” (Doc. 74 at 7). According to Defendants, the Court’s construction requires that “the plurality of staggered members must include gaps in each of the two rows such that foam would be allowed to flow all the way into the hook fastening elements.” (Doc. 92 at 10). Defendants contend that the MH4’s “continuous outer wave wall does not allow foam to pass through gaps which are between separate vertical members; it only allows [a small amount of] foam to flow underneath the peak of the wave formation” before the continuous

inner wall “stops this foam flow from proceeding any further.” (*Id.* at 10; Doc. 92 at 10). In other words, Defendants’ argument is that the MH4’s function is different than the function of the staggered members because the MH4 “does not just impede foam; it stops all foam intrusion.” (Doc. 108 at 10).

In response, Plaintiffs argue that the outer wall and inner walls of the MH4 perform substantially the same function of impeding foam flow as the staggered members of the ’059 Patent. Citing to the declaration of its expert, Dr. John Pratt, Plaintiffs state that, in the MH4, “[f]oam passes through gaps in the outer wall and flows into the space between the outer gapped wall and inner continuous wall.” (Doc. 103 at 17). Thereafter, “upon contact with the inner continuous wall, the foam is forced to turn to the left and right, filling the spaces behind the un-gapped portions of the outer wall.” (*Id.* citing Pratt Decl.).

Plaintiffs argue that the way in which the plurality of staggered members force foam flow to change directions is by blocking direct foam paths to the fastening elements. (Doc. 103 at 18 citing Pratt Decl.). Plaintiffs cite the ’059 Patent, which explains, “[b]y disposing two rows of the vertical members in a staggered manner, the foam resin passing through the gaps between the outer vertical members is interrupted by the inner wall portions so that its flow is changed to the right and left directions.” (Doc. 103 at 18)(quoting ’059 Patent, col. 4, ll. 18–22). Thus, Plaintiffs continue, “the fastening elements are not directly open to the side portions of the fastener strip.” (*Id.*)(quoting ’059 Patent, col. 8, ll. 48–50).

Plaintiffs assert that the MH4 functions in the same way. (*Id.*). Citing Dr. Pratt, Plaintiffs contend that “[t]he outer row of MH4 has segments that contact and seal against the mold surface, and gaps between those segments allow foam to pass through.” (*Id.* citing Pratt Decl.). Further, Plaintiffs note that “[f]oam cannot flow directly in a straight line into the fastening elements because that pathway is blocked by the portions of the continuous inner wall immediately behind the gaps in the outer wall. Instead the inner wall interrupts foam passing through the gaps between the outer members and forces the flow path of the foam to turn to the right and left directions.” (*Id.* citing Pratt Decl.). Defendants argue that “the plurality of staggered members must include gaps in each of the two rows such that foam would be allowed to flow all the way into the hook fastening elements.” (Doc. 91 at

10). However, as Plaintiffs note, the specification of the ‘059 patent contradicts Defendants’ argument. (Doc. 103 at 19). As the specification indicates, “[a]ll that is required is that the plurality of vertical sealing members located at the outer edges of the fastener strip present a sufficient impediment to foam penetration, so that the fastening elements remain unfouled during the molding process.” ‘059 Patent, col. 13, ll. 10–14.

Finally, Plaintiffs argue that the MH4 “achieves substantially the same result as the claimed plurality of staggered members—allowing foam to penetrate the space between the inner and outer rows to anchor the fasteners strip into the foam while preventing the foam from reaching the fastening elements.” (*Id.* at 19-20 citing Pratt. Decl.). In its Reply, Defendants admit that the MH4 shows “similar results as the ‘059 Patent’s plurality of staggered members—preventing foam from fouling the hooks.” (Doc. 108 at 11).

The Court finds that Defendants have not produced sufficient evidence to show that there is no genuine dispute as to whether the MH4 performs substantially the same function, in substantially the same way, producing substantially the same result as the staggered members of the ‘059 Patent. Accordingly, summary judgment of non-infringement is not appropriate because there are genuine issues of material fact as to infringement of claims 2, 3, 4, and 9 under the doctrine of equivalents.

B. Indirect Infringement

Regarding indirect infringement, Defendants argue that because the MH4 does not directly infringe claims 2, 3, 4, and 9 of the ‘059 Patent, neither do Defendants indirectly infringe those claims by inducement. (Doc. 92 at 14-15 citing *Limelight Networks, Inc., v. Akamai Techs., Inc.*, 134 S.Ct. 2111 (2014) (holding that inducement liability may arise “if, but only if, [there is] . . . direct infringement”)). However, as discussed *supra*, genuine issues of material fact remain regarding whether Defendants directly infringed asserted claims 2, 3, 4, and 9.

Defendants further contend that even if direct infringement is found, Defendants “[have] not and cannot be found to induce infringement by selling MH4 because [Defendants have] not sold any version of the MH4 product in the United States.” (Doc 92 at 15 n.3). Plaintiffs respond, noting that “Velcro admits that it has imported MH4 into the

United States and has provided MH4 to its customers for testing in molding processes.” (Doc. 103 at 20 n.6)(citing Doc. 103-17 at 33:21–25; 37:16–19). Moreover, Plaintiffs note, “Velcro also admits that it is actively marketing MH4.” (Id.)(citing Doc. 103-17 at 33:21-25). Plaintiffs argue that “[a]ll of these constitute infringing activities under 35 U.S.C. § 271.” (Doc. 103 at 20 n.6).

“Acts that constitute infringement of the United States Patent are codified in Title 35 U.S.C. 271, and paragraph (b) thereof extends to those who induce the infringement of any United States Patent. Inducement is found when one knowingly causes, or urges, or encourages or aids another in the infringement of a patent claim, even though he himself has not infringed the patent claim by making, using or selling the invention.” *Nationwide Chemical Corp. v. Wright*, 458 F.Supp. 828, 838 (M.D. Fla. 1976) (citing *Fromberg v. Thornhill*, 315 F.2d 407, 411–12 (5th Cir. 1963)). In other words, whoever actively induces another to use, offer to sell, or sell any patented invention without authority is subject to liability for inducement of infringement. *See* 35 U.S.C. § 241(a) and (b); *see also Nationwide*, 458 F.Supp. at 838. Therefore, if direct infringement of Claims 2, 3, 4, and 9 is found, the fact that Defendants have not *sold* MH4 will not preclude a finding of indirect infringement. Accordingly, summary judgment of non-infringement is not appropriate as to Claims 2, 3, 4, and 9.

Claims 12, 13: “Continuous Transverse Walls”

C. Direct Infringement

1. Literal Infringement

Literal infringement exists when every limitation recited in the claim is found in the accused device. *Akzo Nobel Coatings, Inc. v. Dow Chemical Co.*, 811 F.3d 1334, 1341 (Fed. Cir. 2016) (citing *Cole v. Kimberly-Clark Corp.*, 102 F.3d 524, 532 (Fed. Cir. 1996)). To prevail on a claim for literal infringement, “the plaintiff must establish by preponderance of the evidence that the accused device infringes one or more claims of the patent either literally or under the doctrine of equivalents.” *Cook*, 460 F.3d at 1373. Here, the Parties’ dispute centers on whether the cross-directional wall of Defendants’ accused MH4 product literally infringes the “continuous transverse wall(s)” limitations of Claim 12 or Claim 13 of YKK’s ’059 Patent. It does not.

Claim 12 asserts a claim for a fastener strip with a “continuous transverse wall disposed on an end portion” of the strip and Claim 13 asserts a claim for a fastener strip with “continuous transverse walls disposed at predetermined intervals along the length” of the strip. ’059 Patent, col. 15, ll. 37-38; 50-51. The Parties did not dispute the meaning of the term “continuous” during claim construction; instead, they asked the Court to determine the number of continuous transverse walls required to satisfy the “intervals” limitation in Claim 13. *See* (Doc. 74 at 19–27). In determining whether Defendants MH4 literally infringes Claims 12 and 13 of the ’059 Patent, both Parties agree that the Court should accord to “continuous” its plain and ordinary meaning in the context of the ’059 Patent’s specification but disagree on its resulting meaning. *See* (Docs. 92-1 at 11–12, 103 at 6, 108 at 3-5). According to Defendants, the ’059 Patent identifies “continuous” to mean “unbroken” or “without gaps.” (Docs. 92-1 at 11–13, 108 at 4–5). Defendant, therefore, argues that the MH4 does not literally infringe Claims 12 and 13 of the ’059 Patent because the MH4 instead includes “gapped cross walls running transversely across the width of the fastener strip at intervals. . . . [and] [s]et off from and adjacent to each break or gap in the cross wall is a small block structure that is separate from the cross wall.” (Doc. 92-1 at 12).

Plaintiffs, on the other hand, contend that “[a] person of ordinary skill in the art would understand a continuous transverse wall as a wall that does not include gaps sufficient to allow passage of foam beyond the wall to foul the hook elements” of the fastener strip. (Doc. 103 at 6). Plaintiffs, therefore, maintain that MH4 has continuous transverse walls, and thus literally infringes the ’059 Patent, because “the foam blockers form part of the continuous transverse walls . . . and close off any break or gap in the wall that would permit foam to flow through to foul the hooks beyond the wall. . . .” (*Id.* at 8). In support of its argument, Plaintiffs point to four photographs of the MH4 showing: (1) the block structures and adjacent gaps in the cross wall structures from two diagonal angles; (2) the block structures and adjacent gaps in the cross wall structures from overhead; and (3) one end of an MH4 product molding into a foam cushion in testing done by Plaintiffs’ expert John D. Pratt, Ph.D., P.E. (Doc. 103 at 6–8). Plaintiffs’ further cite deposition testimony from Mark Clarner, Defendants’ Intellectual Property Manager, opining that the cross walls would be

continuous “if the foam blocker were to contact the rest of the [cross wall],” and from Velcro Engineer Michael Cina indicating that Defendants designed the foam blockers with the intent to “reduce [the passage of] foam into the hook areas.” (Doc. 103 at 8-9). Finally, Dr. Pratt, Plaintiffs’ expert, concedes that while, “[i]n some—but certainly not all—cases there may be a microscopic crack between the foam blocker and the adjacent parts of the wall along some portions of the height of the wall” his testing “determined that any microscopic crack in the MH4 product is too small for foam to flow through and foul the hooks beyond the wall.” (Doc. 103-28 ¶ 37).

Plaintiffs have failed to prove by a preponderance of the evidence that Defendants’ MH4 fastener strip includes structures that conform with the “continuous transverse wall(s)” limitation in Claims 12 or 13 of the ’059 Patent. First, Plaintiffs improperly attempt to inject a functional requirement for the “continuous” term without pointing to support in the ’059 Patent. While the photographs, expert opinion, and deposition testimony Plaintiffs proffer suggest that the MH4’s cross walls substantially perform the same function of impeding foam flow from the edge of the fastener strip towards the hook elements during the molding process, Plaintiffs point to no evidence in Claim 12 or Claim 13 of the proposed function of the continuous transverse wall(s) within the limitation. Nor can Plaintiffs do so because Claim 12 and Claim 13 merely describe the positions of each “continuous transverse wall” on the fastener strip. Specifically, Claim 12 requires that “a continuous transverse wall [be] disposed on an end portion” of the fastener strip. ’059 Patent, col. 15, ll. 37-38. Likewise, Claim 13 requires that the “continuous transverse walls [be] disposed at predetermined intervals along the length” of the invention. ’059 Patent, col. 15, ll. 50-51.

Second, the ’059 Patent also teaches that the plain and ordinary meaning of “continuous” to a person of ordinary skill in the art at the relevant time of the invention was “unbroken” or “without gaps.” For example, the specification describes Figure 17 as showing “a second row of the vertical members 2 is continuous” and Figure 28 as depicting “a case where vertical members 2 shown in Fig. 27 are replaced with a continuous vertical member 2, to form a perimeter around the hook-like fastening elements 3. ’059 Patent, col. 10, ll. 60-61, col. 11, ll. 55-58. In contrast, the ’059 Patent describes vertical members

separated by gaps as non-continuous. For example, the Background of the Invention refers to “[t]he non-continuous nature of the vertical members—that is, they do not form a continuous staff wall—allows the edges of the fastener strip to flex. . . .” ’059 Patent, col. 3, ll. 4-8. *See also* (Doc. 74 at 8-9).

Third, Plaintiffs acknowledge that gaps exist along the cross walls of the MH4, and thus the cross walls of the accused device are not literally continuous. Plaintiffs do not argue that absolutely no gaps exist along the MH4’s cross walls; instead, Plaintiffs employ a qualifying term in contending that “[t]here are no *significant* gaps or breaks in the wall that would allow foam to flow through.” (Doc. 103 at 7) (emphasis added). In other words, Plaintiffs’ position gives rise to the reasonable inference that gaps exist in the MH4’s cross walls, though the aperture of the gaps may not be “significant.” Furthermore, Dr. Pratt, Plaintiffs’ expert, concedes that “there may be a microscopic crack between the foam blocker and the adjacent parts of the [MH4’s] [cross] wall.”

Accordingly, the Court finds that Plaintiffs have not provided sufficient evidence from which a reasonable jury could find that Defendants’ MH4 product literally infringes all limitations in Claims 12 and 13 of the ’059 Patent, including the “continuous transverse wall(s)” limitations in each.

2. Doctrine of Equivalents and Prosecution History Estoppel

As noted above, under the doctrine of equivalents, “a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if there is ‘equivalence’ between the elements of the accused product or process and the claimed elements of the patented invention.” *Warner-Jenkinson Co.*, 520 U.S. at 21 (internal citation omitted). “However, prosecution history estoppel may bar the patentee from asserting equivalents if the scope of the claims has been narrowed by amendment during prosecution.” *Honeywell Int'l, Inc. v. *1182 Hamilton Sundstrand Corp.*, 370 F.3d 1131, 1139 (Fed. Cir. 2004) (en banc). “A patentee’s decision to narrow his claims through amendment may be presumed to be a general disclaimer of the territory between the original claim and the amended claim.” *Festo*, 535 U.S. at 740. The presumption of surrender is

extended to new claims added during prosecution that contain a limitation that narrowed another claim through amendment. *See Felix v. American Honda Motor Co., Inc.*, 562 F.3d 1167, 1183 (Fed. Cir. 2009) (“The presumption of surrender ‘applies to all claims containing the added limitation, regardless of whether the claim was, or was not amended during prosecution.’”) (citing *Deering Precision Instruments, LLC v. Vector Distribution Sys., Inc.*, 347 F.3d 1314, 1325 (Fed. Cir. 2003) (internal parenthetical marks omitted)). Prosecution history estoppel, therefore, is intended to “prevent a patentee from using the doctrine of equivalents to recapture subject matter surrendered from the literal scope of a claim during prosecution.” *Trading Techn. Intern., Inc. v. Open E Cry, LLC*, 728 F.3d 1309, 1322 (Fed. Cir. 2013). Accordingly, courts may apply prosecution history estoppel “only where claims have been amended for a limited set of reasons, such as to avoid the prior art, or otherwise to address a specific concern—such as obviousness—that arguably could have rendered the claimed subject matter unpatentable.” *Festo*, 535 U.S. at 735 (internal quotation marks and citation omitted).

The patentee may nevertheless rebut the presumption that it surrendered the equivalent in question by showing that “at the time of the amendment one skilled in the art could not reasonably be expected to have drafted a claim that would have literally encompassed the alleged equivalent.” *Festo*, 535 U.S. at 741. Specifically, the patentee may overcome the *Festo* presumption in any of three ways: “demonstrat[ing] that the alleged equivalent would have been unforeseeable at the time of the narrowing amendment, that the rationale underlying the narrowing amendment bore no more than a tangential relation to the equivalent in question, or that there was ‘some other reason’ suggesting that the patentee could not reasonably have been expected to have described the alleged equivalent.” *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 344 F.3d 1359, 1368 (Fed. Cir. 2003) (en banc) (quoting *Festo*, 535 U.S. at 741).

Here, Defendants argue that prosecution history estoppel precludes Plaintiffs from asserting that the MH4’s cross walls infringe the “continuous transverse wall(s)” limitation in Claims 12 and 13 of the ’059 Patent under the doctrine of equivalents. According to Defendants, Plaintiffs narrowed independent application claim 58, which later issued as ’059

Patent claim 12, for the purposes of patentability by adding the additional limitation from dependent application claim 64: “wherein said substrate additionally comprises a *continuous transverse wall* disposed on an end portion on said substrate.” (Doc. 108 at 6-7)(emphasis added). Thus, Defendants argue that Plaintiffs surrendered the equivalent non-continuous cross wall element in its MH4 product from the scope of Claim 12 arises. (See Docs. 92-1 at 13-14, 108 at 7-8). Likewise, Defendants maintain that the presumption of surrender applies to the scope of Claim 13 because, during prosecution, Plaintiffs added new application Claim 85 that also contained the “continuous transverse wall” limitation: “wherein said substrate additionally comprises *continuous transverse walls* disposed at predetermined intervals along the length thereof.” (Doc. 108 at 8)(emphasis added).

In response, Plaintiffs contend that the presumption of surrender is rebutted because the reason for the amendment of later-issued Claim 12 and the addition of later-issued Claim 13 bears no more than a tangential relationship to the non-continuous transverse wall equivalent in question. (See Doc. 103 at 11-14). While Plaintiffs concede that, during prosecution, the examiner rejected its application claim 58 as being anticipated by two prior art references—Kayaki and Kayser—Plaintiffs point out that “neither discloses any walls at all, much less [a] transverse wall, and even less so transverse walls with foam blockers such as are used with MH4.” (Doc. 103 at 12). Furthermore, Plaintiffs argue, “the examiner indicated that numerous amended claims specifying various types of walls in YKK’s patent were allowable, including perimeter walls, ladder walls, transverse walls, continuous walls, etc.” (Doc. 103 at 13). In reply, Defendants contend that “[a]dding the [“continuous transverse wall(s)’] limitation was central to allowance of the claim because it was not until YKK added this limitation that the examiner found the claims allowable.” (Doc. 108 at 8). Moreover, Defendants argue that Plaintiffs fail to point to evidence in the prosecution history demonstrating its “objectively apparent reason for the narrowing amendment.” (Doc. 108 at 9).

Where “the rationale underlying the amendment may bear no more than a tangential relation to the equivalent in question. . . . the patentee can overcome the presumption that prosecution history estoppel bars a finding of equivalence.” *Festo*, 535 U.S. at 740-41.

Whether a “patentee can rebut the *Festo* presumption under the ‘tangential’ criterion focuses on the patentee’s objectively apparent reason for the narrowing amendment, which must be discernible from the prosecution history record.” *Felix*, 562 F.3d at 1184. Further, the patentee bears the burden of establishing “the reason for an amendment required during patent prosecution.” *Warner-Jenkinson Co.*, 520 U.S. at 33. However, if no explanation for the amendment is established, “the court should presume that the patent applicant had a substantial reason related to patentability for including the limiting element added by amendment. In those circumstances, prosecution history estoppel would bar the application of the doctrine of equivalents as to that element.” *Id.* Nevertheless, the presumption is subject to rebuttal “if an appropriate reason for a required amendment is established.” *Id.*

In an attempt to overcome the prosecution history estoppel bar, Plaintiffs argue that the present case is analogous to *Instituform Techs., Inc. v. CAT Contracting, Inc.*, holding that because “the amendment narrowing the claimed invention . . . was tangential to” the accused process, prosecution history estoppel did not apply to the element in question. 385 F.3d 1360 (Fed. Cir. 2004). (Doc. 103 at 14). In *Instituform*, the original claims covered a method of repairing pipes using vacuum cups, but did not specify a single or multi-cup process. 385 F.3d at 1368–69. After being rejected because of prior art (“Everson”), the claims were amended to a single cup process by incorporating limitations of dependent claims, triggering the prosecution history estoppel presumption. *Id.* at 1369. However, the Court determined that there was no indication in the prosecution history of any relationship between the narrowing amendment and a multiple cup process, which was the alleged equivalent. *Id.* at 1370. The difference between the claimed process and the prior art—and consequently, the reason for the amendment—related only to the size of the suction compressor. *Id.* Accordingly, the court held that because “the amendment narrowing the claimed invention from multiple cups to a single cup was tangential to” the accused process, prosecution history estoppel did not apply. *Id.* at 1371.

In *Instituform*, however, the court noted that the “*Warner-Jenkinson* presumption, which comes into play only when *no explanation* is given for a claim amendment,” was not applicable because during prosecution, *Instituform* explained the reason for the amendment of the

claim at issue. *Id.* Here, Plaintiffs admit that the claim amendments were made “without comment regarding the reasons for those amendments.” (Doc. 103 at 13.). Thus, while the Court recognizes that the addition of the continuous transverse walls limitation does *seem* unrelated to overcoming the prior art of Kayaki and Kayser, Plaintiffs have failed to appropriately establish an explanation for the addition of the limitation in the prosecution history. Accordingly, the court presumes that Plaintiffs had a substantial reason related to patentability for including the continuous transverse walls added by amendment, and prosecution history estoppel bars the application of the doctrine of equivalents as to that element. *See Warner-Jenkinson Co.*, 520 U.S. at 33; *see also Felix*, 562 F. 3d at 1184 (holding that Plaintiff did not identify an explanation in the prosecution history for the addition of a limitation, and therefore Plaintiff could not meet its burden to show that the rationale for adding the limitation was tangential to the proposed equivalent); *Norian Corp. v. Stryker Corp.*, 432 F.3d 1356, 1361–62 (Fed. Cir. 2005)(“[I]t frequently happens that patentees surrender more through amendment than may have been absolutely necessary to avoid particular prior art. In such cases, we have held the patentees to the scope of what they ultimately claim, and we have not allowed them to assert that claims should be interpreted as if they had surrendered only what they had to.”).

Further, Plaintiffs argue that because claim 13 (previously claim 85) was never amended during prosecution, prosecution history estoppel does not apply to Claim 13. (Doc. 103 at 14). However, the presumption of surrender “applies to all claims containing the [added] []imitation, regardless of whether the claim was, or was not, amended during prosecution.” *Felix*, F.3d at 1183 (quoting *Deering Precision Instruments, LLC v. Vector Distribution Systems, Inc.*, 347 F.3d 1314, 1326 (Fed. Cir. 2003)). Therefore, prosecution history estoppel bars the application of the doctrine of equivalents to “continuous transverse walls” in both Claims 12 and 13. Accordingly, Defendants’ MH4 product does not directly infringe Claims 12 and 13.

D. Indirect Infringement

Liability for inducement must be predicated on direct infringement. *Limelight Networks, Inc., v. Akamai Techs., Inc.*, 134 S.Ct. 2111 (2014) (holding that inducement liability may arise

“if, but only if, [there is] . . . direct infringement’’)). The Court finds that Defendants’ MH4 does not directly infringe Claims 12 and 13 of the ‘059 Patent, either literally or under the doctrine of equivalents. Therefore, Defendant has not indirectly infringed Claims 12 and 13 by inducement. *See Limelight*, 134 S.Ct. at 2117. Accordingly, summary judgment of non-infringement is appropriate as to Claims 12 and 13.

II. Claims 15-19

Plaintiffs argue that as a result of Defendants’ alleged infringement of Claims 12 and 13, Defendants have also infringed Claims 15-19,³ which are dependent on Claims 12 and 13. (Doc. 103 at 14). However, “[o]ne who does not infringe an independent claim cannot infringe a claim dependent on (and thus containing all the limitations of) that claim.” *Wahpeton Canvas Co., Inc. v. Frontier, Inc.*, 870 F.2d 1546, 1552 n.9 (Fed. Cir. 1989). Pursuant to its finding of non-infringement of independent Claims 12 and 13, the Court finds that Defendants have not infringed dependent Claims 15-19. Accordingly, summary judgment of non-infringement is appropriate as to Claims 15-19.

CONCLUSION

In light of the forgoing, Defendants’ Motion for Partial Summary Judgment of Non-Infringement (Doc. 92) is **GRANTED** in part and **DENIED** in part. Defendants’ Request for Hearing on its Motion (Doc. 106) is **DENIED**.

SO ORDERED, this 10th day of March, 2017.

/s/ Leslie J. Abrams
LESLIE J. ABRAMS, JUDGE
UNITED STATES DISTRICT COURT

³ Plaintiffs note that Defendants do not address Claim 14 specifically; but, because Claim 14 is also dependent on Claims 12 and 13, Plaintiffs argue that “[t]o the extent that Velcro asserts that it is entitled to summary judgment of non-infringement of Claim 14, its motion fails for the same reasons [applicable to Claims 15-19].” (Doc. 103 at 15 n.4). Defendants have not infringed Claims 12 and 13, and for the reasons discussed *supra*, Defendants have not infringed dependent Claim 14.